

## UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S)	Ellis A. PINDER	ART UNIT:	2687
APPLN. NO.:	10/669,034	EXAMINER:	M. Santiago-Cordero
FILED:	September 23, 2003	Confirmation No.	1818
TITLE:	METHOD AND APPARATUS TO SELF-CONFIGURE AN ACCESSORY DEVICE		

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Commissioner for Patents  
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RESPONSE AFTER FINAL ACTION

Sir:

This communication is responsive to the Office Action mailed January 12, 2006, concerning the above-identified application. Applicant submits the following Remarks and respectfully requests the Examiner to reconsider the rejections made in the Action and to allow the claims to issue. A Petition for Extension of Time to respond, with fee authorization, is submitted concurrently herewith.

Please amend the application as follows:

**Claims** are reflected in the listing of claims, which begins on page 2 of this paper.

**Remarks/Arguments** begin on page 8 of this paper.

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (previously presented): An interface configuration for an accessory, comprising:
  - an accessory microcontroller;
  - at least one accessory option for installation into the accessory, the at least one accessory option detected by the accessory microcontroller; and
  - a serial memory device coupled to the accessory microcontroller, the serial memory device having accessory data stored therein, the accessory microcontroller reading the serial memory device and comparing the accessory data to the at least one detected accessory option, the accessory updating the serial memory device with the detected accessory option for self-configuration.
2. (original): The interface configuration of claim 1, wherein the serial memory device is accessible locally from the accessory microcontroller, and the serial memory device is accessible remotely from a radio microcontroller.
3. (original): The interface configuration of claim 2, further comprising a data bus for data communication between the radio microcontroller and the accessory microcontroller.
4. (original): The interface configuration of claim 1, wherein the at least one accessory option is updatable.

5. (previously presented): A smart accessory for a communication device, the accessory comprising:

    a memory device having accessory parameter data stored therein, the parameter data being accessible locally by the smart accessory and remotely by the communication device;

    installable modules for storing optional operating configurations within the smart accessory; and

    wherein the smart accessory self-configures itself to operate over at least one of the optional operating configurations based on the parameter data, and the communication device adjust its operation in response thereto.

6. (original): The smart accessory of claim 5, wherein the optional operating configurations include software options.

7. (original): The smart accessory of claim 5, wherein the optional operating configurations include mechanical options.

8. (original): The smart accessory of claim 5, wherein the optional operating configurations include electrical options.

9. (original): The smart accessory of claim 5, wherein the optional operating configurations include software, mechanical, and electrical options.

10. (previously presented): A method for self-configuring a smart accessory, comprising the steps of:

providing a common electrical, mechanical, and software platform for the accessory with optional electrical, mechanical, and software configurations therein;

providing a memory device having accessory parameter data stored therein;

installing an optional configuration into the accessory;

detecting the presence of the optional configuration at the accessory; and

updating the accessory parameter data of the memory device so as to self-configure the accessory to the detected optional configuration.

11. (original): The method of claim 10, further comprising the step of adjusting a communication device based on the accessory configuration.

12. (original): A method for self-configuring an accessory to a radio, comprising the steps of:

- powering up an accessory having a serial memory device contained therein;
- detecting the presence of options including mechanical, electrical, and software options within the accessory;
- reading accessory parameter data from the serial memory device;
- comparing the accessory parameter data to the detected options;
- configuring the accessory for the detected options if the step of comparing did not result in a match;
- detecting the presence of the accessory by the radio; and
- operating the radio and accessory in accordance with the detected options.

13. (original): An interface configuration for an accessory to be used with a communication device, comprising:

at the accessory:

an accessory microcontroller;

accessory options coupled to the accessory microcontroller; and

a serial memory device coupled to the accessory microcontroller, the serial memory device containing parameter data for the accessory that is accessible locally from the accessory microcontroller, the accessory microcontroller verifying and updating the parameter data to correspond with the accessory options; and

the updated parameter data available remotely to the communication device for operation of the accessory with the radio.

14. (original): The interface configuration of claim 13, wherein the serial memory device is a single wire device.

15. (original): The interface configuration of claim 13, wherein the serial memory device is a two wire device.

16. (previously presented): The interface configuration of claim 13, wherein the serial memory device is a three wire device.

17. (previously presented): The interface configuration of claim 13, wherein the accessory options include at least one of software, mechanical, and electrical options.

18. (previously presented): The interface configuration of claim 1, wherein the at least one accessory option is user-installed.

19. (previously presented): The interface configuration of claim 1, wherein the at least one accessory option is factory-installed.

20. (previously presented): The smart accessory of claim 5, wherein the installable modules are user-installed.

21. (previously presented): The smart accessory of claim 5, wherein the installable modules are factory-installed.

22. (previously presented): The smart accessory of claim 5, wherein some of the installable modules are user-installed and others are factory-installed.

23. (previously presented): The method of claim 12, further comprising the step of installing the options.

24. (previously presented): The interface configuration of claim 13, wherein the accessory options are user-installed.

25. (previously presented): The interface configuration of claim 13, wherein the accessory options are factory-installed.

26. (previously presented): The interface configuration of claim 13, wherein some of the accessory options are user-installed and others are factory-installed.

**REMARKS/ARGUMENTS**

Claims 1 – 26 remain in the application. Applicant respectfully requests reconsideration of this application.

**Rejection - 35 U.S.C. § 102(e)**

*Claims 1-6, 8, 13-22 and 24-26 were rejected under 35 U.S.C. § 102(e) as being anticipated by Curtiss et al. (Curtiss) Pub. No.: US 2003/0162562.*

Applicant respectfully traverses.

Claim 1 recites that “the at least one accessory option for installation into the accessory, the at least one accessory option detected by the accessory microcontroller”. Applicant maintains that Curtiss fails to teach or suggest the installation of an accessory option into the accessory. In the Office Action dated January 12, 2006 the Examiner referred to page 5, paragraph [0050] where Curtiss describes register (524) as any type of storage unit configured to store one or more bits of data, such as data that defines or controls certain aspects of operation for the micro-controller (508). However, there is nothing in this section that teaches or suggests the installation aspect as claimed by Applicant’s invention.

The Examiner also referred to page 2, paragraph [0014] where Curtiss describes that the drawbacks associated with the prior art are overcome by associating or storing control data with the accessory. The accessory of Curtiss includes memory configured to store the control data and interface with an electronic device. Curtiss also states that if the accessory must be modified, the control data may also be updated to account for the modification. Applicant respectfully asserts that Curtiss actually teaches away from installation of accessory options into the accessory in paragraph [0014] with the statement that new accessories may be

released after the release or purchase of the electronic device, that contain the most up to date control data. Applicant's invention does not require the purchase of new accessories.

Applicant's invention only requires the installation of accessory options into the accessory.

Applicant maintains that register (524) of Curtiss is not an installable option, but rather a permanent physical presence. FIG. 5 further supports this assertion where register (524) is shown inside the accessory (500) without any indication of being an installable option.

Accordingly, the rejection of claim 1 is believed to be overcome. Claims 2-4 provide further limitations to what is believed to be an allowable claim and hence are also in condition for allowance.

The rejection of independent claim 5 is traversed. Claim 5 recites "installable modules for storing optional operating configurations within the smart accessory." As discussed above Curtiss fails to teach or suggest installable modules and actually teaches away from this aspect of the invention by stating that new accessories may be released in paragraph [0014]. No new accessory need be released to obtain up to date control data with Applicant's invention. Furthermore, the last sentence of paragraph [0014] of Curtiss does not make sense – if Curtiss uses a new accessory then there is no need to "update" the control data. Additionally, again as to the last sentence of paragraph [0014] even if the control data were to be updated there is no teaching or suggestion in Curtiss as to how the updates are accomplished. Accordingly, the rejection of claims 1 and 5 are overcome.

Dependent claims 6 and 8 provide further limitations to what is believed to be an allowable claim 5 and hence are also in condition for allowance. New dependent claims 20-22 have been added to claim the installable modules as user-installed and/or factory-installed as discussed above.

The rejection of independent claim 13 is respectfully traversed. In addition to the arguments made above, in Applicant's invention, the memory of the accessory contains

parameter data for the accessory that is available locally and the accessory microcontroller verifies and updates the parameter data to correspond to accessory options. All of this is happening at the accessory side. The updated parameter data is then available remotely to the communication device. Curtiss, on the other hand, utilizes the electronic device side in all updates. Referring to paragraph [0059] cited by the Examiner, Curtiss teaches away from updating locally where Curtiss describes “*control data in the electronic device processor memory is updated by the control data downloaded from memory. In this manner the processor memory is updated to contain the control data that is stored on the accessory*”. The “apparatus to perform a comparison” described in paragraph [0056] and cited by the Examiner compares control data from the accessory and control data stored on the electronic device (step 728) and thus again Curtiss utilizes the electronic device side for any updates. Claims 14-17 are dependent claims providing further limitations to what is believed to be an allowable claim 13 and hence are also in condition for allowance.

Dependent claims 18-22 and 24-26 recite that the accessory options are installed into the accessory either by the user and/or a factory. The Examiner referred paragraph [0005] in rejecting these dependent claims stating that Curtiss discloses that in the prior art the data was stored in the phone at the time the phone leaves the manufacturing plant or when the phone is sold. However, the accessory options of Applicant's invention are not being installed into the phone (i.e. communication device) – the accessory options of Applicant's invention are being installed into the accessory. Thus, for example:

for claim 18 depending on claim 1, we have:

“...an accessory microcontroller;  
at least one accessory option for installation into the accessory, the at least one accessory option detected by the accessory microcontroller, wherein the at least one accessory option is user-installed...”

for claim 20 depending on claim 5, we have:

“...the accessory comprising:  
a memory device having accessory parameter data stored therein, the parameter data being accessible locally by the smart accessory and remotely by the communication device;  
installable modules for storing optional operating configurations within the smart accessory,  
wherein the installable modules are user-installed; and...”

for claim 24 depending on claim 13, we have:

“...at the accessory:  
an accessory microcontroller;  
accessory options coupled to the accessory microcontroller, wherein the accessory options are user-installed; and...”

Similar arguments apply to claims 19, 21, 22, 25, and 26. The installable options are installed into the accessory by the user, by the factory or a combination of both – not into the phone/communication device. Thus, the rejection 18-22 and 24-26 is overcome.

Accordingly the rejection of claims 1-6, 8, 13-22 and 24-26 is believed to be overcome.

**Rejection - 35 U.S.C. § 103(a)**

*Claims 7 and 9-12 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Curtiss in view of Bozoukov (Pat. No. 6,603,986):*

Applicant respectfully traverses.

Claims 7 and 9 are dependent claims providing further limitations to what are believed to be allowable claims and hence are also in condition for allowance.

Independent claim 10 is believed to be non-obvious over the cited references taken individually or in combination. Neither reference taken individually or in combination teaches or suggests installing an optional configuration into the accessory as discussed above.

Claim 11 is a dependent claim providing further limitations to what is believed to be an allowable claim 10 and hence is also in condition for allowance.

Claim 12 is an independent claim including steps powering, detecting, reading, comparing and configuring all occurring at the accessory side. The radio only comes into the claim at the last two steps of detecting and operating. Curtiss, as argued above, involves the radio from the beginning. The cited references taken individually or in combination do not teach the sequence of steps that configure the accessory prior to detection and operation with the radio. Thus, the rejection of independent claim 12 is overcome. Dependent claim 23 re-emphasizes the accessory side focus of this invention by the step of installing the options (which as recited in claim 12 are within the accessory).

Accordingly, the rejection of claims 7 and 9-12 and 23 were rejected under 35 U.S.C. § 103(a) is believed to be overcome.

Accordingly, the rejection of claims 1-26 is overcome.

The Applicants believe that the subject application is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge Deposit Account 502117, Motorola, Inc, with any fees which may be required in the prosecution of this application.

Respectfully submitted,

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